Annexure A. 7.1
DETAILED COST ESTIMATE
RATE ANALYSIS
QUANTITY ABSTRACT
ABSTRACT BILL OF QUANTITIES

ESTIMATE

Construction of drains and culverts in Thanisandra village and Saraipalya and surrounding areas in ward no. 06, New ward no. 07

BRUHAT BANGALORE MAHANAGARA PALIKE

YELAHANKA ZONE, Byatarayanapura Division.

Name Of Work : Construction of drains and culverts in Thanisandra village and Saraipalya and surrounding areas in ward no. 06, New ward no. 07

	Estimate : A						Est Cost: =300.00 Lakhs		
Sl. No.	Description of work	Unit	No.	Length	Breadth	Depth	Quantity	Rate in Rs.	Amount in Rs.
				m	m	m			
1	Earth work excavation by manual means for drains,canals, waste weir, draft, approach channels, key trenches, foundation of bridges and such simillar works in all kinds of soils , as per drawing and technical specifications, including setting out, shoring, strutting, barricading, caution lights, removal of stumps and other deleterious matter, excavated surface leveled and sides neatly dressed disposing off the excavated stuff or sorting & stacking the selected stuff for reuse in a radius of 50 m and lift upto 1.5 m including cost of labour, tools & other appurtenaces required to complete the work. (PWD SR 2021-22 Vol -I Pg No 5 item no 1.4.1)								
		Cum							
	Saraipalya Main Road								
	New Drain								
	In Front of LS Car Rentals		1	39.00	1.10	1.00	42.90		
	Next to Palace Apartment LHS		1	48.00	1.10	1.00	52.80		
	Next to Palace Apartment RHS		1	48.00	1.10	1.00	52.80		
	Road 26th Cross Road LHS Side		1	170.00	1.10	1.00	187.00		
	Vidyasagar Road 1st Cross End Portion		1	49.00	1.10	1.00	53.90		
	Narrow Road From Main road RHS		1	196.00	1.10	1.00	215.60		
	Narrow Road From Main road LHS		1	72.00	1.10	1.00	79.20		
	Narrow Road Cross 1		1	60.00	1.10	1.00	66.00		
	Narrow Road Cross 2		1	35.00	1.10	1.00	38.50		
	Narrow Road Cross 3		1	30.00	1.10	1.00	33.00		
	Telephone Exchange road		1	52.00	1.10	1.00	57.20		
	Masjid Opp Road till Sarai Palya Main Road road		1	155.00	1.10	1.00	170.50		
	Masjid Road		1	102.00	1.10	1.00	112.20		
	Madeena Clothing Centre Road		1	32.00	1.10	1.00	35.20		
	AshwathNagar End Road		1	125.00	1.10	1.00	137.50		
	Bharath Nagara Bismillah Chicken Centre Road		1	205.00	1.10	1.00	225.50		
	To Connect Main Nalah		1	45.00	1.10	1.00	49.50		
	Ring Road to Thanisandra Connecting Road LHS		1	60.00	1.10	1.00	66.00		
	Ring Road to Thanisandra Connecting Road RHS		1	55.00	1.10	1.00	60.50		
	SaraiPalya Main Road LHS		1	300.00	1.40	1.40	588.00		
	Saraipalya Main Road	Cum							
	Culverts								
	In Front of LS Car Rentals		1	7.00	1.20	1.00	8.40		
	Next to Palace Apartment Entrance		1	7.00	1.20	1.00	8.40		
	Road 26th Cross Road LHS Side		2	7.00	1.20	1.00	16.80		
	Vidyasagar Road 1st Cross End Portion		1	8.00	1.20	1.00	9.60		
	Narrow Road From Main road RHS		1	7.00	1.20	1.00	8.40		
	Narrow Road Cross 1		1	6.00	1.20	1.00	7.20		
	Narrow Road Cross 2		1	6.00	1.20	1.00	7.20		

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	Narrow Road Cross 3		1	6.00	1.20	1.00	7.20		
	Masjid Opp Road till Sarai Palya Main Road road		2	6.00	1.20	1.00	14.40		
	Masjid Road		1	6.00	1.20	1.00	7.20		
	Bharath Nagara Bismillah Chicken Centre Road		6	6.50	1.20	1.00	46.80		
	To Connect Main Nalah		1	7.00	1.20	1.00	8.40		
	Bharath Nagara, Cross Road		1	7.00	1.20	1.00	8.40		
	Ring Road to Thanisandra Connecting Road		2	5.50	1.20	1.00	13.20		
	SaraiPalya Main Road LHS		5	6.00	1.40	1.20	50.40		
	For Dewatering sump								
	Saraipalya Low laying area		1	4.00	7.5	2.45	73.5		
	Basic rate	186.00							
	Loading and Unloading	118.00							
	Sub Total	304.00							
	Area weightage 10%	30.40							
	Sub Total	**334.40**							
	Total						**2619.30**	**334.40**	**875894.00**
2	Providing and laying in position plain cement concrete Mix 1:3:6 (M10) for levelling course for all works in foundation. Using 40 mm nominal size graded crushed coarse aggregates and fine aggregates as per relevant IS Codes machine mixed, laid in layers not exceeding 150 mm thickness, well compacted using plate vibrators, including all lead & lifts, cost of all materials of quality, labour, Usage charges of machineries, curing, and all the other appurtenances required to complete the work as per technical specifications. (PWD SR 2021-22 Vol -I Pg 15 item no 2.1.3) (Issue Rate Considered 7 July 2022)								
	Saraipalya Main Road								
	New Drain								
	In Front of LS Car Rentals		1	39.00	1.00	0.15	5.85		
	Next to Palace Apartment LHS		1	48.00	1.00	0.15	7.20		
	Next to Palace Apartment RHS		1	48.00	1.00	0.15	7.20		
	Road 26th Cross Road LHS Side		1	170.00	1.00	0.15	25.50		
	Vidyasagar Road 1st Cross End Portion		1	49.00	1.00	0.15	7.35		
	Narrow Road From Main road RHS		1	196.00	1.00	0.15	29.40		
	Narrow Road From Main road LHS		1	72.00	1.00	0.15	10.80		
	Narrow Road Cross 1		1	60.00	1.00	0.15	9.00		
	Narrow Road Cross 2		1	35.00	1.00	0.15	5.25		
	Narrow Road Cross 3		1	30.00	1.00	0.15	4.50		
	Telephone Exchange road		1	52.00	1.00	0.15	7.80		
	Masjid Opp Road till Sarai Palya Main Road road		1	155.00	1.00	0.15	23.25		
	Masjid Road		1	102.00	1.00	0.15	15.30		
	Madeena Clothing Centre Road		1	32.00	1.00	0.15	4.80		
	AshwathNagar End Road		1	125.00	1.10	0.15	20.63		
	Bharath Nagara Bismillah Chicken Centre Road		1	205.00	1.00	0.15	30.75		
	To Connect Main Nalah		1	45.00	1.00	0.15	6.75		
	Ring Road to Thanisandra Connecting Road LHS		1	60.00	1.10	0.15	9.90		
	Ring Road to Thanisandra Connecting Road RHS		1	55.00	1.10	0.15	9.08		
	SaraiPalya Main Road LHS		1	300.00	1.00	0.15	45.00		

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	Saraipalya Main Road	Cum							
	Culverts								
	In Front of LS Car Rentals		1	7.00	1.00	0.15	1.05		
	Next to Palace Apartment Entrance		1	7.00	1.00	0.15	1.05		
	Road 26th Cross Road LHS Side		2	7.00	1.00	0.15	2.10		
	Vidyasagar Road 1st Cross End Portion		1	8.00	1.00	0.15	1.20		
	Narrow Road From Main road RHS		1	7.00	1.00	0.15	1.05		
	Narrow Road Cross 1		1	6.00	1.00	0.15	0.90		
	Narrow Road Cross 2		1	6.00	1.00	0.15	0.90		
	Narrow Road Cross 3		1	6.00	1.00	0.15	0.90		
	Masjid Opp Road till Sarai Palya Main Road road		2	6.00	1.00	0.15	1.80		
	Masjid Road		1	6.00	1.00	0.15	0.90		
	Bharath Nagara Bismillah Chicken Centre Road		6	6.50	1.00	0.15	5.85		
	To Connect Main Nalah		1	7.00	1.00	0.15	1.05		
	Bharath Nagara, Cross Road		1	7.00	1.00	0.15	1.05		
	Ring Road to Thanisandra Connecting Road		2	5.50	1.00	0.15	1.65		
	SaraiPalya Main Road LHS		5	6.00	1.00	0.15	4.50		
	Kerb PCC								
	SaraiPalya Main Road LHS		1	290.00	0.20	0.10	5.80		
	SaraiPalya Sump		1	4.00	7.50	0.20	6.00		
	Basic rate	5554.00							
	Area weightage 10%	555.40							
	Sub Total	**6109.40**							
	Total						**323.05**	**6109.40**	**1973642.00**
3	Providing and laying in position Reinforced cement concrete for all Sub structures of building, Irrigation works, Sub structure works of bridges, Drain works & other parallel works from 0.50m to 3.50 m height. The granite/trap/basalt crushed graded coarse aggregates and fine aggregates as per relevant IS Codes machine mixed with super plasticisers, laid in layers, well compacted using needle vibrators, providing weep holes wherever necesary, including all lead & lifts, cost of all materials of quality, confirming to the requirements of relevant IS codes, labour, Usage charges of machinery, curing and all other appurtenances required to complete the work as per technical specifications. M20 (The cost of steel reinforcement & formwork to be paid separately) (PWD SR 2021-22 Vol -I Pg 17 item no 2.4.2) (Issue Rate Considered 7 July 2022)								
	Drain								
	Bottom Raft								
	Saraipalya Main Road								
	New Drain								
	In Front of LS Car Rentals		1	39.00	0.90	0.15	5.27		
	Next to Palace Apartment LHS		1	48.00	0.90	0.15	6.48		
	Next to Palace Apartment RHS		1	48.00	0.90	0.15	6.48		
	Road 26th Cross Road LHS Side		1	170.00	0.90	0.15	22.95		
	Vidyasagar Road 1st Cross End Portion		1	49.00	0.90	0.15	6.62		
	Narrow Road From Main road RHS		1	196.00	0.90	0.15	26.46		
	Narrow Road From Main road LHS		1	72.00	0.90	0.15	9.72		
	Narrow Road Cross 1		1	60.00	0.90	0.15	8.10		
	Narrow Road Cross 2		1	35.00	0.90	0.15	4.73		
	Narrow Road Cross 3		1	30.00	0.90	0.15	4.05		
	Telephone Exchange road		1	52.00	0.90	0.15	7.02		

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Masjid Opp Road till Sarai Palya Main Road road		1	155.00	0.90	0.15	20.93		
Masjid Road		1	102.00	0.90	0.15	13.77		
Madeena Clothing Centre Road		1	32.00	0.90	0.15	4.32		
AshwathNagar End Road		1	125.00	0.90	0.15	16.88		
Bharath Nagara Bismillah Chicken Centre Road		1	205.00	0.90	0.15	27.68		
To Connect Main Nalah		1	45.00	0.90	0.15	6.08		
Ring Road to Thanisandra Connecting Road LHS		1	60.00	0.90	0.15	8.10		
Ring Road to Thanisandra Connecting Road RHS		1	55.00	0.90	0.15	7.43		
SaraiPalya Main Road LHS		1	300.00	0.90	0.15	40.50		
Side Walls								
New Drain								
In Front of LS Car Rentals		2	39.00	0.15	0.60	7.02		
Next to Palace Apartment LHS		2	48.00	0.15	0.60	8.64		
Next to Palace Apartment RHS		2	48.00	0.15	0.60	8.64		
Road 26th Cross Road LHS Side		2	170.00	0.15	0.60	30.60		
Vidyasagar Road 1st Cross End Portion		2	49.00	0.15	0.60	8.82		
Narrow Road From Main road RHS		2	196.00	0.15	0.60	35.28		
Narrow Road From Main road LHS		2	72.00	0.15	0.60	12.96		
Narrow Road Cross 1		2	60.00	0.15	0.60	10.80		
Narrow Road Cross 2		2	35.00	0.15	0.60	6.30		
Narrow Road Cross 3		2	30.00	0.15	0.60	5.40		
Telephone Exchange road		2	52.00	0.15	0.60	9.36		
Masjid Opp Road till Sarai Palya Main Road road		2	155.00	0.15	0.60	27.90		
Masjid Road		2	102.00	0.15	0.60	18.36		
Madeena Clothing Centre Road		2	32.00	0.15	0.60	5.76		
AshwathNagar End Road		2	125.00	0.15	0.60	22.50		
Bharath Nagara Bismillah Chicken Centre Road		2	205.00	0.15	0.60	36.90		
To Connect Main Nalah		2	45.00	0.15	0.60	8.10		
Ring Road to Thanisandra Connecting Road LHS		2	60.00	0.15	0.60	10.80		
Ring Road to Thanisandra Connecting Road RHS		2	55.00	0.15	0.60	9.90		
SaraiPalya Main Road LHS		2	300.00	0.15	1.00	90.00		
				Sub Total		**627.57**		
New Culvert Raft								
Saraipalya Main Road	**Cum**							
In Front of LS Car Rentals		1	7.00	0.90	0.20	1.26		
Next to Palace Apartment Entrance		1	7.00	0.90	0.20	1.26		
Road 26th Cross Road LHS Side		2	7.00	0.90	0.20	2.52		
Vidyasagar Road 1st Cross End Portion		1	8.00	0.90	0.20	1.44		

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	Narrow Road From Main road RHS		1	7.00	0.90	0.20	1.26		
	Narrow Road Cross 1		1	6.00	0.90	0.20	1.08		
	Narrow Road Cross 2		1	6.00	0.90	0.20	1.08		
	Narrow Road Cross 3		1	6.00	0.90	0.20	1.08		
	Masjid Opp Road till Sarai Palya Main Road road		2	6.00	0.90	0.20	2.16		
	Masjid Road		1	6.00	0.90	0.20	1.08		
	Bharath Nagara Bismillah Chicken Centre Road		6	6.50	0.90	0.20	7.02		
	To Connect Main Nalah		1	7.00	0.90	0.20	1.26		
	Bharath Nagara, Cross Road		1	7.00	0.90	0.20	1.26		
	Ring Road to Thanisandra Connecting Road		2	5.50	0.90	0.20	1.98		
	SaraiPalya Main Road LHS		5	6.00	0.90	0.20	5.40		
	Side Walls								
	Saraipalya Main Road	**Cum**							
	In Front of LS Car Rentals		2	7.00	0.20	0.60	1.68		
	Next to Palace Apartment Entrance		2	7.00	0.20	0.60	1.68		
	Road 26th Cross Road LHS Side		4	7.00	0.20	0.60	3.36		
	Vidyasagar Road 1st Cross End Portion		2	8.00	0.20	0.60	1.92		
	Narrow Road From Main road RHS		2	7.00	0.20	0.60	1.68		
	Narrow Road Cross 1		2	6.00	0.20	0.60	1.44		
	Narrow Road Cross 2		2	6.00	0.20	0.60	1.44		
	Narrow Road Cross 3		2	6.00	0.20	0.60	1.44		
	Masjid Opp Road till Sarai Palya Main Road road		4	6.00	0.20	0.60	2.88		
	Masjid Road		2	6.00	0.20	0.60	1.44		
	Bharath Nagara Bismillah Chicken Centre Road		12	6.50	0.20	0.60	9.36		
	To Connect Main Nalah		2	7.00	0.20	0.60	1.68		
	Bharath Nagara, Cross Road		2	7.00	0.20	0.60	1.68		
	Ring Road to Thanisandra Connecting Road		4	5.50	0.20	0.60	2.64		
	SaraiPalya Main Road LHS		10	6.00	0.20	0.80	9.60		
					Sub Total		**75.06**		
	Basic rate	5968.00							
	Add 5% for Shuttering	298.40							
	Sub Total	6266.40							
	Area weightage 10%	626.64							
	Total	**6893.04**							
	Total						**702.63**	**6893.04**	**4843257.00**
4	Supplying, Fitting and Placing un-coated TMT bar Reinforcement in sub-structure complete as per Drawing and Technical Specifications. MORTH Specification NO.1600&2200 (PWD SR 2021-22 Vol -III Pg 99 item no 13.1)								
	For Drain	Cum					627.57		
		kg	Steel assumed 60Kg/Cum of				37654.20		
		tonne					**37.65**		
	For Culvert	Cum					75.06		
		kg	Steel assumed 90 Kg/Cum of				6755.40		
		tonne					**6.76**		

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	Basic rate	92170.00							
	Area weightage 10%	9217.00							
	Sub Total	**101387.00**							
	Total						**44.41**	**101387.00**	**4502557.00**
5	Providing and Fixing pre cast covering Slab made out of CC 1:2:4 with 10cm thick made of M25 with OPC cement @ 340kgs per Cum with 20 mm and Down size graded granite metal coarse agg @.70 mixed including providing and removing centering, shuttering, shuttering propping etc. for edges of slabs with TMT (Fe500) COM, labor, labor, all Lead and Lift, HOM, Curing, including Cost of reinf. Etc, Complete as directed by the Engineer In charge of Work (Data Rate)								
	New Drain Cover Slab	Sqm							
	Saraipalya Main Road								
	New Drain								
	In Front of LS Car Rentals		1	39.00	0.90		35.10		
	Next to Palace Apartment LHS		1	48.00	0.90		43.20		
	Next to Palace Apartment RHS		1	48.00	0.90		43.20		
	Road 26th Cross Road LHS Side		1	170.00	0.90		153.00		
	Vidyasagar Road 1st Cross End Portion		1	49.00	0.90		44.10		
	Narrow Road From Main road RHS		1	196.00	0.90		176.40		
	Narrow Road From Main road LHS		1	72.00	0.90		64.80		
	Narrow Road Cross 1		1	60.00	0.90		54.00		
	Narrow Road Cross 2		1	35.00	0.90		31.50		
	Narrow Road Cross 3		1	30.00	0.90		27.00		
	Telephone Exchange road		1	52.00	0.90		46.80		
	Masjid Opp Road till Sarai Palya Main Road road		1	155.00	0.90		139.50		
	Masjid Road		1	102.00	0.90		91.80		
	Madeena Clothing Centre Road		1	32.00	0.90		28.80		
	AshwathNagar End Road		2	125.00	0.90		225.00		
	Bharath Nagara Bismillah Chicken Centre Road		1	205.00	0.90		184.50		
	Bharath Nagara, Cross Road		1	10.00	0.90		9.00		
	For Road Way								
	Ring Road to Thanisandra Connecting Road LHS		1	30.00	0.90		27.00		
	Ring Road to Thanisandra Connecting Road RHS		1	25.00	0.90		22.50		
	SaraiPalya Main Road LHS		1	300.00	0.90		270.00		
	Data rate	**2072.00**							
	Total						**1717.20**	**2072.00**	**3558039.00**

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6	Providing and Fixing pre cast covering Slab 230mm thick made out of CC 1:1.5:3 and jelly 20mm Down size with steel reinforcement including form work,curing,including cost of alll materials, labour,hire charges of machinery, loading, unloading, lead and lift,transportation etc ,complete.As per Engineer incharge (Approved Data Rate)								
	Culvert Cover Slab	Sqm							
	New Culvert								
	Saraipalya Main Road	**Cum**							
	In Front of LS Car Rentals		1	7.00	1.20		8.40		
	Next to Palace Apartment Entrance		1	7.00	1.20		8.40		
	Road 26th Cross Road LHS Side		2	7.00	1.20		16.80		
	Vidyasagar Road 1st Cross End Portion		1	8.00	1.20		9.60		
	Narrow Road From Main road RHS		1	7.00	1.20		8.40		
	Narrow Road Cross 1		1	6.00	1.20		7.20		
	Narrow Road Cross 2		1	6.00	1.20		7.20		
	Narrow Road Cross 3		1	6.00	1.20		7.20		
	Masjid Opp Road till Sarai Palya Main Road road		2	6.00	1.20		14.40		
	Masjid Road		1	6.00	1.20		7.20		
	Bharath Nagara Bismillah Chicken Centre Road		6	6.50	1.20		46.80		
	To Connect Main Nalah		1	7.00	1.20		8.40		
	Bharath Nagara, Cross Road		1	7.00	1.20		8.40		
	For (Road Way)								
	Ring Road to Thanisandra Connecting Road LHS		1	30.00	1.00		30.00		
	Ring Road to Thanisandra Connecting Road RHS		1	30.00	1.00		30.00		
	SaraiPalya Main Road LHS		5	6.00	1.20		36.00		
	Ring Road to Thanisandra Connecting Road		2	5.50	0.90		9.90		
	Data rate	5037.00							
	Total						**264.30**	**5037.00**	**1331280.00**
7	Providing and fixing pre cast solid cement concrete kerb stones made out of M20 with top and bottom width 114 and 165 mm respectively, 400mm high and 450mm in length finished with CM 1:3 plastering and finishing cutting including formwork, curing, including cost of materials, labour charges of machinery, loading and unloading, lead and lift, transportation ete.,complete as directed by the Engineer in Charge of the work (excluding GST and Area Leading Charges) (Approved Data Rate)								
	Kerb Stones	Nos							
	SaraiPalya Main Road LHS		1	290.00			290.00		
					In Nos		644.44		
	Data rate	507.00							
	Total						**645.00**	**507.00**	**327015.00**
8	Painting Two Coats on New Concrete Surfaces Painting two coats after filling the surface with synthetic enamel paint in all shades on new plastered concretesurfaces. MORTH Chapter 803 (PWD SR 2021-22 Vol III Pg no 56 Item No 8.10)								
	Kerb Stones	Nos							
	SaraiPalya Main Road LHS		1	290.00		0.35	101.50		
	Basic rate	85.00							
	Area weightage 10%	8.50							
	Sub Total	**93.50**							
	Total						**101.50**	**93.50**	**9490.25**

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	Road Works								
9	Earth work in surface excavation by mechanical means for lowering & leveling the ground for all works other than foundation in all kinds of soils & upto depth not exceeding 300mm as per drawing and technical specifications, including setting out, shoring, strutting, barricading, caution lights, removal of stumps and other deleterious matter including dressing of excavated surfaces, disposing off or levelling the excavated earth or sorting & stacking the selected earth for reuse in a radius of 50 m and lift upto 1.5 m including cost of labour, tools, usage of machinery & other appurtenances required to complete the work. In all kinds of soils upto 300 mm depth. (PWD SR 21-22 Vol I Pg no 8 Item No 1.12)								
	CC Road Saraipalya	**Cum**							
	In Front of LS Car Rentals Cross Road		1	21.00	3.10	0.25	16.28		
	Next to Palace Apartment Entrance		1	48.00	4.10	0.25	49.20		
	Road 26th Cross Road LHS Side From Palace Apartment		1	60.00	5.00	0.25	75.00		
	Vidyasagar Road 1st Cross End Portion		1	49.00	4.10	0.25	50.23		
	LHS Cross Road to Saraipalya Main Road 1		1	38.00	4.10	0.25	38.95		
	LHS Cross Road to Saraipalya Main Road 3		1	36.00	4.70	0.25	42.30		
	LHS Cross Road to Saraipalya Main Road 4		1	37.00	3.00	0.25	27.75		
	LHS Cross Road to Saraipalya Main Road 5		1	37.00	3.20	0.25	29.60		
	LHS Cross Road to Saraipalya Main Road 6		1	37.00	2.00	0.25	18.50		
	LHS Cross Road to Saraipalya Main Road 7		1	30.00	2.50	0.25	18.75		
	LHS Cross Road to Saraipalya Main Road 7 A		1	10.00	4.00	0.25	10.00		
	Beside Masjid Road		1	25.00	3.50	0.25	21.88		
	In front of MHN School		1	17.00	4.90	0.25	20.83		
	Biji Fabric End Road RHS Side		1	25.00	3.50	0.25	21.88		
	Narrow Road Cross 1		1	60.00	4.00	0.25	60.00		
	Narrow Road Cross 2		1	35.00	4.00	0.25	35.00		
	Narrow Road Cross 3		1	30.00	4.00	0.25	30.00		
	Connecting Road Ring Road to Thanisandra		1	105.00	4.50	0.25	118.13		
	Connecting Road Ring Road to Thanisandra Bell mouth		2	3.00	6.00	0.25	9.00		
	Basic rate	186.00							
	Loading and Unloading	74.00							
	Sub Total	260.00							
	Area weightage 10%	26.00							
	Sub Total	**286.00**							
	Total						**693.25**	**286.00**	**198269.50**
10	Providing, laying, spreading and compacting graded stone aggregate to **wet mix macadam** specification including premixing the Material with water at OMC in mechanical mix plant carriage of mixed Material by tipper to site, laying in uniform layers with paver/grader in sub-base / base course on well prepared surface and compacting with vibratory roller to achieve the desired density MORTH Specification No. 406 (PWD SR 21-22 Vol III Pg no 24 Item No 4.27 (A))								
		Cum							
	CC Road Saraipalya								
	In Front of LS Car Rentals Cross Road		1	21.00	3.10	0.15	9.77		
	Next to Palace Apartment Entrance		1	48.00	4.10	0.15	29.52		
	Road 26th Cross Road LHS Side From Palace Apartment		1	60.00	5.00	0.15	45.00		

SHRIJAY CONSTRUCTION AND CONSULTANCY

	Vidyasagar Road 1st Cross End Portion		1	49.00	4.10	0.15	30.14		
	LHS Cross Road to Saraipalya Main Road 1		1	38.00	4.10	0.15	23.37		
	LHS Cross Road to Saraipalya Main Road 3		1	36.00	4.70	0.15	25.38		
	LHS Cross Road to Saraipalya Main Road 4		1	37.00	3.00	0.15	16.65		
	LHS Cross Road to Saraipalya Main Road 5		1	37.00	3.20	0.15	17.76		
	LHS Cross Road to Saraipalya Main Road 6		1	37.00	2.00	0.15	11.10		
	LHS Cross Road to Saraipalya Main Road 7		1	30.00	2.50	0.15	11.25		
	LHS Cross Road to Saraipalya Main Road 7 A		1	10.00	4.00	0.15	6.00		
	Beside Masjid Road		1	25.00	3.50	0.15	13.13		
	In front of MHN School		1	17.00	4.90	0.15	12.50		
	Biji Fabric End Road RHS Side		1	25.00	3.50	0.15	13.13		
	Narrow Road Cross 1		1	60.00	4.00	0.15	36.00		
	Narrow Road Cross 2		1	35.00	4.00	0.15	21.00		
	Narrow Road Cross 3		1	30.00	4.00	0.15	18.00		
	Connecting Road Ring Road to Thanisandra		1	105.00	4.50	0.15	70.88		
	Connecting Road Ring Road to Thanisandra Bell mouth		2	3.00	6.00	0.15	5.40		
	Basic rate	2394.00							
	Area weightage 10%	239.40							
	Sub Total	**2633.40**							
	Total						**415.95**	**2633.40**	**1095362.73**
11	Providing and laying in position plain cement concrete for levelling course for all works in foundation. The granite/trap/basalt crushed graded coarse aggregates and fine aggregates as per relevant IS Codes machine mixed, laid in layers not exceeding 150 mm thickness, well compacted using plate vibrators, including all lead & lifts, cost of all materials of quality, labour, Usage charges of machinery, curing, and all the other appurtenances required to complete the work as per technical specifications. (The cost of steel reinforcement & formwork shall be paid separately) Mix 1:5:10 (M 5.0) Using 40 mm nominal size graded crushed coarse aggregates(Specification No. 2.1.1 PWD SR 2021-22 Vol -I P.No.50) (Issue Rate Considered 7 July 2022)								
		Cum							
	CC Road Saraipalya								
	In Front of LS Car Rentals Cross Road		1	21.00	3.10	0.15	9.77		
	Next to Palace Apartment Entrance		1	48.00	4.10	0.15	29.52		
	Road 26th Cross Road LHS Side From Palace Apartment		1	60.00	5.00	0.15	45.00		
	Vidyasagar Road 1st Cross End Portion		1	49.00	4.10	0.15	30.14		
	LHS Cross Road to Saraipalya Main Road 1		1	38.00	4.10	0.15	23.37		
	LHS Cross Road to Saraipalya Main Road 3		1	36.00	4.70	0.15	25.38		
	LHS Cross Road to Saraipalya Main Road 4		1	37.00	3.00	0.15	16.65		
	LHS Cross Road to Saraipalya Main Road 5		1	37.00	3.20	0.15	17.76		
	LHS Cross Road to Saraipalya Main Road 6		1	37.00	2.00	0.15	11.10		
	LHS Cross Road to Saraipalya Main Road 7		1	30.00	2.50	0.15	11.25		

SHRIVA CONSTRUCTION AND CONSULTANCY

	LHS Cross Road to Saraipalya Main Road 7 A		1	10.00	4.00	0.15	6.00		
	Beside Masjid Road		1	25.00	3.50	0.15	13.13		
	In front of MHN School		1	17.00	4.90	0.15	12.50		
	Biji Fabric End Road RHS Side		1	25.00	3.50	0.15	13.13		
	Narrow Road Cross 1		1	60.00	4.00	0.15	36.00		
	Narrow Road Cross 2		1	35.00	4.00	0.15	21.00		
	Narrow Road Cross 3		1	30.00	4.00	0.15	18.00		
	Connecting Road Ring Road to Thanisandra		1	105.00	4.50	0.15	70.88		
	Connecting Road Ring Road to Thanisandra Bell mouth		2	3.00	6.00	0.15	5.40		
	Basic rate	4859.00	✓						
	Area weightage 10%	485.90							
	Sub Total	**5344.90**							
	Total						**415.95**	**5344.90**	**2223211.16**

12 Providing and constructing un-reinforced plain cement concrete pavement, thickness as per design, over a prepared sub base, with 43 grade cement or any other type as per Clause 1501.2.2 M30 (Grade), coarse and fine aggregates conforming to IS:383, maximum size of coarse aggregate not exceeding 25 mm, mixed in a concrete mixer of not less than 0.2 cum capacity and appropriate weigh batcher using approved mix design, laid in approved fixed side formwork (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the formwork as per drawing), spreading the concrete with shovels, rakes, compacted using needle, screed and plate vibrators and finished in continuous operation including construction joints, , primer, sealant , curing of concrete slabs for 14- days, and water finishing to lines and grade as per drawing and technical specification clause 1501 with all lead, lifts, loading & unloading charges, cost and conveyance of all materials, labour, equipments etc., complete MORTH Specification No.1501 . as per the directions of the Engineer-in-charge of the work. (PWD SR 2021-22 Vol -III Pg 138 item no 20.29) (Issue Rate Considered 7 July 2022)

	Cum							
CC Road Saraipalya								
In Front of LS Car Rentals Cross Road		1	21.00	3.10	0.15	9.77		
Next to Palace Apartment Entrance		1	48.00	4.10	0.15	29.52		
Road 26th Cross Road LHS Side From Palace Apartment		1	60.00	5.00	0.15	45.00		
Vidyasagar Road 1st Cross End Portion		1	49.00	4.10	0.15	30.14		
LHS Cross Road to Saraipalya Main Road 1		1	38.00	4.10	0.15	23.37		
LHS Cross Road to Saraipalya Main Road 3		1	36.00	4.70	0.15	25.38		
LHS Cross Road to Saraipalya Main Road 4		1	37.00	3.00	0.15	16.65		
LHS Cross Road to Saraipalya Main Road 5		1	37.00	3.20	0.15	17.76		
LHS Cross Road to Saraipalya Main Road 6		1	37.00	2.00	0.15	11.10		
LHS Cross Road to Saraipalya Main Road 7		1	30.00	2.50	0.15	11.25		
LHS Cross Road to Saraipalya Main Road 7 A		1	10.00	4.00	0.15	6.00		
Beside Masjid Road		1	25.00	3.50	0.15	13.13		
In front of MHN School		1	17.00	4.90	0.15	12.50		
Biji Fabric End Road RHS Side		1	25.00	3.50	0.15	13.13		
Narrow Road Cross 1		1	60.00	4.00	0.15	36.00		
Narrow Road Cross 2		1	35.00	4.00	0.15	21.00		
Narrow Road Cross 3		1	30.00	4.00	0.15	18.00		
Connecting Road Ring Road to Thanisandra		1	105.00	4.50	0.15	70.88		

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	Connecting Road Ring Road to Thanisandra Bell mouth		2	3.00	6.00	0.15	5.40		
	Basic rate	6512.00							
	Area weightage 10%	651.20							
	Sub Total	**7163.20**							
	Total						415.95	**7163.20**	**2979533.04**
13	**Cost of Haulage** Excluding Loading and Unloading Taking output 18 t load and lead 8 km = 96 t.km (PWD SR 2021-22 Vol-III Page No.3, Item No.1.4B) NO. 1.4 A).								
	Qty frm Item No-1	**t.Km**		2619.30	1.28		3352.70		
	Qty frm Item No-7			693.25	1.28		887.36		
	Basic rate	**12.00**					**4240.06**	**105.60**	**447751.00**
	8Km 12*8	96.00							
	Area Weightage 10%	9.60							
	Total	**105.60**							
14	KSRB 2.8 : Providing and Filling in foundation with granite / trap broken metal 100mm. and down size, with approved sand including hand packing, ramming, watering, including cost of all materials and labour with all lead and lift. complete as per specifications. Specification No. (PWD SR 2021-22 Vol -2 CORRIGENDA,item No. 6.4)								
	For Dewatering sump								
	Saraipalya Low laying area	cum	1	4.00	7.50	0.30	9.00		
							9.00	**2817.10**	**25353.90**
	Basic rate	**2561.00**							
	Area weightage 10%	**256.1**							
	Total	**2817.1**							
15	Providing and constructing load bearing wall with **Solid Concrete blocks of size 400x200x200mm** having block density more than 1800kg/m3 and minimum compressive strength of 4.00 N/mm2 conforming to IS 2185 (Part - I) - 2005 and constructed with CM 1:4 as per IS 2572:2005 including cost of all materials, labour, scaffolding and curing, usage charges of machinery etc complete as per specifications. (PWD SR 2021-22 Vol -II Pg 17 item no 6.32) issue Rate								
	For sump								
	Saraipalya -								
	Long wall	Sqm	4	7.00		1.80	50.40		
	Short wall		4	2.70		1.80	19.44		
							69.84	1315.60	**91881.50**
	Basic rate	1196.00							
	Area weightage 10%	119.60							
	Total	**1315.60**							
16	**Providing Flush / Ruled/ Struck or weathered pointing Pointing** on brick work or brick flooring with cement mortar 1:3 (1 cement : 3 fine sand) after raking joints to depth nicely lining, including cost of materials, labour, curing as per specifications and as per directions of Engineerin- charge .**(PWD SR 2021-22 Vol -II Pg 44 item no 8.17.1)**								
	Saraipalya	**sqm**	2	2.70		1.80	9.72		
			2	6.20		1.80	22.32		
							32.04	**151.80**	**4863.67**
	Basic rate	138.00							
	Area weightage 10%	13.80							
	Total	**151.80**							

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17	Providing and laying in position **Reinforced cement concrete** for all Foundation works. The granite/trap/basalt crushed graded coarse aggregates and fine aggregates as per relevant IS Codes machine mixed with super plasticizers laid in finished layers, well compacted using needle vibrators, including all lead & lifts, cost of all materials, quality confirming to the requirements of relevant IS codes , labour, Usage charges of machinery, curing and all the other appurtenances required to complete the work as per technical specifications. M25 Design Mix Using 20 mm nominal size graded crushed coarse aggregates with 20% partial replacement with Recycled concrete aggregate (RCA). **(PWD SR 2021-22 Vol -I Pg 15 item no 2.2.2.1)** issue Rate								
	For sump								
	Saraipalya	Cum	1	3.50	7.05	0.15	3.70		
	for bottom concrete		1	6.20	3.50	0.15	3.26		
							6.96	7892.28	**54900.67**
	Basic rate	5979.00							
	Add 20% For Shuttering	1195.80							
	Sub Total	**7174.80**							
	Area weightage 10%	717.48							
	Total	**7892.28**							
18	Providing Thermo-Mechanically **Treated bars of grade Fe-500D or** more Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position, binding and anchoring to adjacent members whereever necessary complete as per Design including cost of material, labour, usage charges complete as per specifications. (The laps and wastages shall not be measured separately). **(PWD SR 2021-22 Vol -II Pg 84 item no 11.32) (Issue Rate Considered 7 July 2022)**								
	For Sump roof slab	Cum					6.96		
		kg	Steel assumed 120 Kg/Cum of				834.75		
	Basic rate	96.00							
	Area weightage 10%	9.60							
	Total	**105.60**					**834.75**	**105.6**	**88149.60**
19	**Providing Lubi make 15 HP 3 Phase dewatering submersible pump** with outlet 6" LHP 61535 @ 8 mtrs 240 m3/hr=4000 lpm								
	15 HP	No	1				**1**	191550.00	**191550.00**
20	**Providing 160 mm PVC pipe** 6 kg/sqcm	mtr	15				**15**	900.00	**13500.00**
21	Providing and fixing 160 mm PVC elbow	No	5				**5**	525.00	**2625.00**
22	**Providing** and fixing 160 mm PVC collar	No	3				**3**	370.00	**1110.00**
23	**Provding** and fixing 160 mm PVC ball wall	No	2				**2**	4350.00	**8700.00**
24	**Providing** and fixing MS gate of size 0.6x0.6 mtr	No	1				**1**	9000.00	**9000.00**
25	**Providing** MS cover with frame of size 0.9x0.9 mtr	No	1				**1**	8000.00	**8000.00**
26	**Supplying of 1.1KV LT UG cable** XPLE or heat resistant PVC Insulated PVC eatruded inner sheath armoured UG LT cable as per IS -1554(Part-1) or IS-7098 Part-1,Armouring strip thickness in average +5% and resistivity 14ohms/kms(max) as per IS -3975 4 core 16sqmm **(Ele SR 2019-20 P-No 40 I/No-6.4.4)**								
	Saraipalya	**Rmtr**	1	20.00			20.00		
							20.00	150.00	**3000.00**
27	Labour charges for laying of 1.1 KV class UG cable in existing trench GI pipe/ stone pipe / on wall/ on pole as required 6 sqmm to 16 sqmm. (Ele SR OF 2019-20 P-No 41 I/No-6.5.1)								
	Saraipalya .	**Rmtr**	1	20.00			20.00		

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							20.00	11.88	237.60
28	**Supplying and drawing 3 core flat PVC sheathed** submersible pump cable manufactured with electrolytic grade copper with flexible copper with low resistance conductor confirming to13:8130-1984 and virgin grade PVC insulation and powder coating extruded PVC sheathed suitable for working voltage upto 1100 V as per IS-694:2010. 3C x 6 mm2 **(PWD Electrical SR 2022-23 Vol-VI Page No.4, Item No.2.6.4)**								
	Saraipalya .	**Mtr**	1	30.00			30.00		
							30.00	242.00	7260.00
29	**Supplying fully automatic star-delta starter** unit push button type with suitable wires, 3 contactors, one adjustable thermal timer mounted on a common base plate held in steel enclosure for use on 400/440 V 3 phase and wired after fixing to the existing wooden board for motor Above 12.5 HP upto 25 HP **(PWD Electrical SR 2022-23 Vol-VI Page No.10, Item No.5.2.2)**								
		Each	1				1	8640.00	8640.00
30	**Fabricating supplying and mounting MS box of 16 SWG** suitable for floor / wall mounting, fully weather proof with provision for better heat dissipation, provided with hinged front cover, equipped with tamper proof locking arrangements, with suitable size clA with necessary cable entry pipe with gland and box should be finished with 7tanks treatment with powder coated paint and finally finished with approved colour etc., complete. **(PWD Electrical SR 2022-23 Vol-VI Page No.15, Item No.5.42.2)**								
	Outdoor box	sq.cm	1	1100.00	20.00		**22000**	0.38	8360.00
31	**Labour charges for erection of outdoor** type panel board and meter boardunits with all necessary materials and labour, tools and equipments including providing cement concrete foundation bed etc., complete as per specification, with testing of as per instructions of engineer incharge of work. **(PWD SR 2021-22 Vol-V Page No.163, Item No.40)**								
		Job	1				1	1390.50	**1390.50**
	Basic Rate	1350.00							
	3% Area Weightage	40.50							
	Total	1390.50							
32	Bescom deposit Charges	LS	1				**1**	20000.00	**20000.00**

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	Sub-Total	24913824.12
	GST Charges (18% of estimated cost)	4484489.00
	DPR Charges (1% of estimated cost)	300000.00
	Project management And Consultancy Charges(1% of estimated cost)	300000.00
	Miscellenious and rounding	1687.00
	Grand Total Amount Rs.	30000000.00
	(Rupees Three Crores Only)	

CERTIFICATE

1) The site has been inspected and the work is found to be necessary.
2) The estimate is based on, PWD SR 2021-22 Vol I, II, III , V and C.S.R of 2018-2019, and Data rates, PWD Electrical 2019-20,PRED 2019-20, SE-RDED approved Rate and Issused Rates.
3) The provisions were made in this estimate are necessary and adequate.
4) The area comes under the Bruhat Bengaluru Mahanagara Palike Limits.
5) This work is not repeated in any other Programs or Grants

Assistant Engineer
Ward No.

Assistant Executive Engineer
Byatarayanapura Sub-Division
B.B.M.P

Executive Engineer
Byatarayanapura - Division
B.B.M.P

SHRIYA CONSTRUCTION AND CONSULTANCY

Technical Sanction
Accorded For RS 300000 Only
Head of A/C.....
CER NO :132..... Dt:.23.09.2022